

***THE DIFFERENCE OF ANTIBACTERIAL POWER
BETWEEN 70% AND 96% ETHANOL EXTRACTS
FROM CARICATURE-PLANT *Graptophyllum pictum* (L)
Griff AGAINST *Streptococcus mutans****

ABSTRACT

Background. *Streptococcus mutans* is the main cause of dental caries. One of the medicinal plants that is widely used by the public is the purple leaf *Graptophyllum pictum* (L) Griff which has a chemical content, including flavonoids, alkaloids, tannins, steroids and saponins which act as antibacterial. **Aim.** Prove that there is a difference in the antibacterial power of 70% ethanol extract and ethanol 96% extract of purple leaves *Graptophyllum pictum* (L) Griff against *Streptococcus mutans*. **Methods.** Extraction was carried out on the symliation of purple leaves with 70% ethanol and 96% ethanol using maceration method. Antibacterial power test was carried out by dilution method to determine MIC, KBM and diffusion method on TYC media to measure the inhibitory zone formed. **Results.** There was no significant difference between the amount of bacterial growth in MIC and MBC 70% ethanol extract and 96% ethanol extract of purple leaves. MIC is located at a concentration of 3.125% and MBC is located at a concentration of 6.25%. In contrast to the results of the dilution test, the diffusion test found a significant difference $p = 0.805$ ($p \Rightarrow 0.05$). The concentration of inhibition zone diameter of 70% ethanol extract was 18.54mm while in ethanol extract 96% was 16.32mm. **Conclusion.** There was no difference in antibacterial power between 70% ethanol extract and 96% ethanol extract of purple leaf *Graptophyllum pictum* (L) Griff against *Streptococcus mutans*.

Keywords: Antibacterial power, 70% ethanol extract, 96% ethanol extract, *Graptophyllum pictum* (L) Griff, MIC, MBC, *Streptococcus mutans*.

**PERBEDAAN DAYA ANTIBAKTERI EKSTRAK
ETANOL 70% DAN EKSTRAK ETANOL 96% DAUN
UNGU *Graptophyllum pictum* (L)Griff TERHADAP
*Streptococcus mutans***

ABSTRAK

Latar belakang. *Streptococcus mutans* merupakan bakteri penyebab utama karies gigi. Salah satu tanaman obat yang banyak digunakan oleh masyarakat adalah daun ungu *Graptophyllum pictum* (L)Griff yang memiliki kandungan kimia, antara lain flavonoid, alkaloid, tannin, steroid dan saponin yang berperan sebagai antibakteri. **Tujuan.** Membuktikan adanya perbedaan daya antibakteri ekstrak etanol 70% dan ekstrak etanol 96% daun ungu *Graptophyllum pictum* (L)Griff terhadap *Streptococcus mutans*. **Metode.** Dilakukan ekstraksi pada simpliasi daun ungu dengan pelarut etanol 70% dan etanol 96% menggunakan metode maserasi. Uji daya antibakteri dilakukan dengan metode dilusi untuk menentukan KHM, KBM dan metode difusi pada media TYC untuk mengukur zona hambat yang terbentuk. **Hasil.** Tidak terdapat perbedaan yang signifikan antara jumlah pertumbuhan bakteri pada KHM dan KBM ekstrak etanol 70% dan ekstrak etanol 96% daun ungu. KHM terletak pada konsentrasi 3,125% dan KBM terletak pada konsentrasi 6,25%. Berbeda dengan hasil pada uji dilusi, pada uji difusi didapatkan perbedaan yang signifikan $p = 0,805$ ($p > 0,05$). Pada konsentrasi diameter zona hambat ekstrak etanol 70% sebesar 18,54mm sedangkan pada ekstrak etanol 96% sebesar 16,32mm. **Kesimpulan.** Tidak ada perbedaan daya antibakteri antara ekstrak etanol 70% dan ekstrak etanol 96% daun ungu *Graptophyllum pictum* (L)Griff terhadap *Streptococcus mutans*.

Kata kunci : Daya antibakteri, Ekstrak etanol 70%, ekstrak etanol 96%, *Graptophyllum pictum* (L)Griff, KHM, KBM, *Streptococcus mutans*.